

WHAT IS CLAIMED IS:

1. A prosthetic elbow for attachment to a humerus and ulna, the prosthetic elbow comprising:

5 a humeral component comprising a generally cylindric spool having a contoured external surface defining a first articular surface;

10 a radioulnar component comprising a body having a generally U-shaped contour with an inner peripheral surface defining a second articular surface sized and shaped for engagement with the first articular surface and relative movement thereagainst;

wherein the body of the radioulnar component is configured for snap-fit attachment to the spool.

2. A prosthetic elbow as set forth in claim 1 wherein the inner peripheral surface of the radioulnar component comprises a bearing surface extending along a circular arc through at least about 180 degrees.

3. A prosthetic elbow as set forth in claim 2 wherein the radioulnar component is formed of a flexible and resilient material.

5 4. In combination, a prosthetic elbow as set forth in claim 1 with humeral and radioulnar positional guides, each of the guides for locating surgical cuts to remove portions of a humerus and ulna to permit implantation of the respective components at locations for proper joint function, each of the guides configured for visual alignment with the respective humerus and ulna for rotation of the prosthetic elbow about the anatomical center of rotation of the natural elbow.

5. A prosthetic elbow as set forth in claim 1 further comprising a stem attached to the spool and extending generally radially therefrom, the stem configured for being received in a medullary canal of the humerus.

6. A prosthetic elbow as set forth in claim 1 wherein the humeral component has a bore extending axially through the spool for receiving at least one fastener to attach the humeral component to the humerus, the humeral component being free of a stem for extending into a medullary canal of the humerus.

7. A prosthetic elbow as set forth in claim 1 wherein the spool has a cavity for receiving bone.

8. A prosthetic elbow for attachment to a humerus and ulna, the prosthetic elbow comprising:

a humeral component comprising a generally cylindric spool having a contoured external surface defining a first articular surface;

a radioulnar component comprising a body having a generally U-shaped contour with an inner peripheral surface defining a second articular surface sized and shaped for engagement with the first articular surface;

wherein the humeral component has a bore extending axially through the spool for receiving at least one fastener to attach the humeral component to the humerus, the humeral component being free of a stem for extending into a medullary canal of the humerus.

9. A prosthetic elbow as set forth in claim 8 wherein the humeral component further comprises a stabilizer for engaging the humerus to prevent rotation of the spool about the bore.

10. A prosthetic elbow as set forth in claim 9 wherein the stabilizer comprises a peg extending from the spool in a generally axial direction for engaging the humerus and preventing rotation of the spool about the bore.

11. A prosthetic elbow as set forth in claim 9 wherein the stabilizer comprises a panel extending from the spool in a generally axial direction for engaging the humerus and preventing rotation of the spool about the bore.

12. A prosthetic elbow as set forth in claim 11 wherein the stabilizer further comprises another panel extending from the spool in a generally axial direction for engaging the humerus and preventing rotation of the spool about the bore.

5

13. A prosthetic elbow as set forth in claim 12 wherein each of the panels has at least one cleat for attaching the humeral component to the humerus.

14. A prosthetic elbow as set forth in claim 8 wherein the spool has a cavity for receiving bone.